

APPENDIX A

1. (Amended) Storage/discharge device integral with a low impedance current pool structure, for application in a primary cell, or in a secondary rechargeable/dischargeable cell, or still in a fuel cell or in a capacitor or in a super capacitor, similar charging/discharging device, complete with one or more than one current pool means to yield multiple current convergent paths, characterized in that by connecting in parallel current pool terminals of identical voltage rating and of electrode boards of like polarities from tanks of like polarities from tanks of dissimilar polarities, or alternatively by series connection or compound serial/parallel combination of current pool terminals way between electrode boards of dissimilar polarities a low impedance structure for input/output current pool is achieved on the exteriority of the positive or negative electrode board on both sides of individually installed electrode tanks.

2. (Amended) Low impedance current pool assembly according to claim 1, as integral with said storage/discharge device, to be connected into a tank of identical polarity electrodes, or a tank of dissimilar polarity electrodes by means of coupling conductors, whereof said current pool terminals of identical potentials and identical polarity are in

parallel, or serving to be connected with current pooling terminals between electrode boards of dissimilar polarities in a tank of dissimilar electrodes, executed in serial connection or compound serial/parallel connection; on the exterior side of the electrode board, of positive or negative polarity, on both sides of the individually installed electrode tank is executed a low impedance current pool structure of any chosen geometry to facilitate infeeding/outfeeding of confluent currents, executed in the form of inflowing/effluent pooling terminals, or that incorporated with parallel current pool conductor, or as made from material of better conductivity with a view to reduce the resistance to infeeding/outfeeding confluent currents; structurally it can comprise singly or plurally any or some of the features listed below:

- plate or strip or web form structure for connection to respective output/input current pool terminals T100 of which individual electrode tanks are installed outside the positive or negative polarity electrode board P200, on both sides of the electrode tank, or other low impedance current pool conductor assembly made of chosen materials in otherwise geometrical configurations;
- plate or strip or web form structure for connection to respective output/input current pool terminals of which

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individual electrode tanks are installed outside the positive or negative polarity electrode boards on both sides of the electrode tank, with areas between consecutive output current pool terminals interconnected by welding, soldering, riveting or screwing technique, or prestressed, or burial or inlay or otherwise means, to facilitate pooling of input/output currents, or other low impedance current pool conductor assembly of chosen material in otherwise geometrical configuration;

- plate or strip or web form structure with output/input current pool terminals associated with the overall storage/discharging device being installed outside the positive or negative polarity electrode board on both sides of the electrode tank, to facilitate transiting of incoming/outgoing current pool, or low impedance current pool conductor assembly of chosen material but otherwise geometrical configuration, said plate form encompassing thickened board of uniform or non-uniform, tilted sheets;
- current pool terminals for input/output purposes secured by soldering, welding, riveting, screwing, prestressing technique or by burial, inlay or otherwise means among themselves, established outside the positive or negative polarity electrode boards on both sides of the electrode tank, led to correspondent

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terminals on the master storage/Discharge Assembly, in plate or strip or web form to facilitate pooling of incoming/outgoing currents, being a low impedance conductive assembly of a chosen geometry or otherwise materials;

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- Interconnect pieces or bars of conductors of a chosen geometry and of chosen materials interposed between parallel conductors between sets of input/output current pool terminals on a plurality of electrode boards of like polarities;
 - Interconnect pieces or bars of chosen geometry and material incorporated additionally between a plurality of serially parallelly connected conductors on input/output current pool terminals on sets of electrode boards of dissimilar polarities.

4. (Amended) Low impedance current pool structure as dependent on the storage/discharge device according to claim 1, whereof the design in respect of the improvement of the positive or negative exteriority of the electrode board on both sides of the independently installed electrode tank is thus: having one or more piece of paralleled positive electrode board P100 and as matched thereto, one or more piece of paralleled negative electrode board P100, set in individual electrode tanks to constitute individual electrode pairs, then have

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flat plate form current pool conductor assembly of chosen material and made to specified thickness installed way between respective current pool terminals on the exteriority of positive or negative electrode board P200 on both sides of each individual electrode tank, so that it is made that the impedance prevalent way between the current pool terminals on the periphery of the external positive or negative electrode board P200 is inferior to that impedance prevailing across the normal electrode surface duly applied with one layer of chemically active material in lattice configurations on the same electrode board.

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7. (Amended) Low impedance current pool structure as part of the storage/discharge device according to claim 1, whereof in the individual electrode pairs formed in the independently installed electrode tank, way between the current pool terminals outside the positive or negative polarity electrode board P200 on both sides, pieces or webform or stripe form current pool conductor assembly are interconnected by soldering, welding, riveting, screw coupling, prestressed bonding, internal burial, laying or otherwise technique, in order that the impedance prevailing between the current pool terminals T100 on the perimeter of the externally provided positive or negative polarity electrode boards be controlled inferior to the impedance on the normal electrode

surface on the other side of the same electrode board that is applied with a lattice work of chemically active coating.

8. (Amended) Low impedance current pool structure as part of the storage/discharge device according to claim 1, whereof the said electrode board with plate form terminals on the outside is good for connection to two or more than two independent electrode tanks, and hence good for like polarity on like polarity paralleling or opposite polarity serial connection under the same voltage specifications.

14. (Amended) Low impedance current pool structure as part of the storage/discharge device according to claim 1, whereof on either of both external sides of the positive or negative electrode board P200 on both sides of individual electrode tank are installed two trapezoidal current pool terminals T100, extending outwardly, characterized in that a dimensional differential exists between the hunch peak of current pool terminals on the same sides of the trapezoid and the edges on both sides of the electrode board so that once an electrode pair is produced by superposing the backsides of the two similarly configured electrode boards, interwoven superposition is made involving the positive/negative polarity electrodes of adjacent electrode boards, with current pool terminals T100 intercrossing but not intervening each other, so as to

San Bi facilitate interactive coupling, with better current pooling effects realized on the basal area of the wider trapezoid.

22. (Amended) Low impedance current pool structure as part of the storage/discharge device according to claim 1, whereof the special features emerge by reason of applicational particularities respecting the electrode board in use, some or all of the following features are inherent:


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- the positive polarity electrode board and negative polarity electrode board being configured circular, nearly circular, elliptical, nearly elliptical, triangular or polylateral, such as, for example, quadrilateral, quintuple lateral, hexagonal, septuple lateral, octuple lateral, and polylateral of even higher orders, to accommodate parallel combination with current pool terminals of identical voltage specifications and of like polarities on each working electrode board from paired or dissimilar electrode tanks; or alternatively to accommodate coupling with current pool terminals between electrode boards of opposite polarities in different electrode tanks, the coupling being serial, parallel or compound serial/parallel combinations;

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- where the low impedance current pool structure of the storage/discharge device is to be applied on non-polar storage/discharge device, a capacitor, for instance, said positive electrode board and negative electrode board will have to be replaced with a non-polar first electrode board and a non-polar second electrode board;
 - where the rod conductor is meant for penetration across and coupling with conductive penetration holes on an electrode board, and once coupled together the rod conductor and the electrode board exhibit good conductive state; it is then because that the rod conductor is composed of a circular, square, triangular, elliptical or otherwise configured geometry, hardcore conductive bar or hollow-set bar, or flexible tube of non-closed hollow-set structure having axial fissures thereon;
 - said rod conductor may be further processed to have both ends thereof embossed with a cap or screw, nut or unilaterally compressed cushion-insulated isolation bumper to exert compression against electrode board sets thereby enhancing the stability of the assembly at large;
 - the rod conductor in the above-mentioned structure serves to penetrate the conductive penetration holes

on like polarity electrode boards in discharge of its parallel current pooling capabilities; or in discharge of serial capabilities by penetrating across dissimilar polarity electrode conductive penetration holes; or still serves to consummate parallel current pooling and serial combination functions by penetrating simultaneously across like polarity and dissimilar polarity electrodes;

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- where the said rod conductor is composed of hollow-set tubes, it is feasible, where preferred, to install gas or fluid pumps and cooling radiator or on the contrary temp. upgrading heater serving to pump the gaseous or fluid liquids through tubular rod conductor duly modulated with cooling or heating, that is, temp. regulations;
 - where a rod conductor serves as the structure for parallel current pool and the fluid passing by is an isolation fluid, then the tubular rod conductor on all electrodes of like potential level can altogether form a straight series loop or parallel loop;
 - where a rod conductor serves the purpose of parallel current pool concurrent with series combination applications, rod conductors of dissimilar potential levels can be connected in series or parallel by means of isolation conduits to facilitate passing of

insulating gaseous or fluid liquids in respect of which temp. regulation is possible with cooling or heating techniques;

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- isolation rings or tubular insulators to be inserted into the isolation penetration holes on the rod conductors and on the electrode boards to be run through, to safeguard insulation and further enhance structural safety among electrode boards themselves;
 - installation of insulation shoes in isolation gaps on electrode boards, rod conductors will pass and the rod conductors themselves to ensure insulation and further upgrade electrode board to electrode board structural stability;
 - installation of spacing stability shoes on the rod conductors and the isolation space on the electrode board which the rod conductor will pass, to ensure insulation and as an effort to enhance additionally electrode board to electrode board structural security;
 - two or more than two current pool terminals each extending outwards on two or more than two sides of individual electrode boards to facilitate multiple parallel combination between electrode boards of like polarities, or alternatively to make serial combination between electrode boards of dissimilar

polarities and to enable concurrently two or more than two current paths in the wake of any input or output current on a same electrode board in the storage battery, so that the internal impedance on the part of the battery when an input or output is in progress, is duly reduced;

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- the insulation being composed of partitioned insulators of dissimilar polarities or insulating membranes, insulating mats furnished between electrode boards of dissimilar polarities; where the insulators are installed by coupling technique, by sleeving, for example, they may be executed in insulation sleeveings applied onto electrode boards of both polarities or instead onto electrode boards of either polarity, positive only or negative only;
 - the container of the storage/discharge device being a shell casing, and composed of insulating or non-insulating materials, serving to protect the electrode boards too; where it is made of non-insulating materials, the interior of the casing and the interspace of the electrodes within must be covered with insulating reinforcements.

23. (Amended) Low impedance current pool structure as part of the storage/discharge device according to claim 1, whereof apart from the input/output current

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pool terminals on the positive, negative electrode boards on both sides of the electrode tank which, as required, may be installed singly or plurally, on one side or on more sides, all the other electrode boards can be structured such that one or more current pool terminal individually extending outwards are installed on two or more than two sides on individual electrode boards; or such that two or more than two current pool terminals are all installed on just one side or more sides, to enable multiple current path paralleling converged on electrode boards of like polarities, or instead multiple path series connection between electrode boards of dissimilar polarities; structurally, the current pool terminals are made of hardcore or hollow-set tubular rod conductors bearing circular, square, otherwise geometric configurations, to be mounted into position across the conductive penetration holes present way between the electrode boards of the storage/discharge device, so that parallel connection is made possible with electrode boards of like polarities, or alternatively serial connection is made among electrode boards of dissimilar polarities, so still so that a combined serial/parallel connection is consummated: further parallel execution is extended to encompass the

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current pool terminals, being conductor themselves, such that they, of identical voltage specifications and on electrode boards of like polarities, from the same or different electrode tanks, the extension goes to series connection too, by interconnecting current pool terminals between electrode boards of different polarities from dissimilar electrode tanks serially and hence compound serial/parallel combination is made possible forthwith, and that complemented with the effort of a low impedance structure whereby input/output current pool terminals are combined to facilitate pooling of incoming/outgoing currents, on the exteriority of positive or negative electrode boards on both sides of individually installed electrode tanks, or alternatively supplemented with parallel run current pool conductors in an effort to reduce impedance to the confluent incoming or outgoing currents.

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